Patent claims

1. A process of applying a liquid to a finely milled solid, in which the liquid to be applied to a solid that is to be finely milled is introduced into the milling zone of a fine milling device during the milling operation or simultaneously with the introduction of the solid to be finely milled, and the fine milling is carried out in the presence of the finely divided liquid.

2. A process according to claim 1, in which there is used a fine milling device in which the material for milling is moved by a gas stream flowing through the milling zone.

3. A process according to either claim 1 or claim 2, in which a gas-jet or fluidised-bed counter-jet mill is used.

4. A process according to either claim 1 or claim 2, in which an impact mill is used.

5. A process according to either claim 1 or claim 2, in which a hammer mill is used.

6. A process according to any one of claims 1 to 5, in which a ready-formulated active ingredient mixture is used as the solid to be finely milled and charged with a liquid.

7. A process according to any one of claims 1 to 6, in which a ready-formulated pesticide or a crop protection product is used as the material for milling.

8. A process according to any one of claims 1 to 7, in which the particle size of the solid to be finely milled is in the range of from 40 μm to 200 μm.

9. A process according to any one of claims 1 to 8, in which the particle size of the solid to be finely milled is in the range of from 80 μm to 120 μm.

10. A process according to any one of claims 1 to 9, in which the liquid to be applied to the finely milled solid is a liquid active ingredient, the solution of an active ingredient, a surface-active substance, a flavouring or an attractant.

11. A process according to any one of claims 1 to 10, in which the amount of liquid to be applied is in the range of from 0.01 to 10 % by weight, based on solid to be finely milled.

12. A device for carrying out the process according to claims 1 to 11, which device, as well as comprising means for introducing and for finely milling the material to be milled and means for discharging the product, comprises a device which enables a finely divided liquid to be metered into the milling zone during the fine milling operation or simultaneously with the introduction of the material for milling.

13. A device according to claim 12, through which a milling or carrier gas flows and which, as well as comprising a milling zone, a pipe for supplying the material for milling to the milling zone, a pipe for supplying the milling or carrier gas to the milling zone, a discharge pipe for the milling or carrier gas containing the finely milled solid charged with a liquid, and a separating device for separating the finely milled solid charged with a liquid from the milling or carrier gas, comprises a device which enables a finely divided liquid either to be metered into the milling zone by way of the milling or carrier gas stream or to be metered directly into the milling zone.

14. A device according to either claim 12 or claim 13, comprising a gas-jet mill **101**, a storage container **102** for the material for milling, a feed device **103** for the material for milling, which feed device **103** is provided with a supply pipe **104** for carrier gas, a supply pipe **105** for introducing the material for milling into the gas-jet mill **101**, a supply pipe **106** for the milling gas, a discharge pipe **113** for the milling gas containing the finely milled solid charged with a liquid, a device **114** for separating the finely milled solid charged with a liquid from the milling gas, a pipe **115** for removing the finely milled solid charged with a liquid, and a discharge pipe **116** for the milling gas freed of the solid, which device is provided with a storage container **109** for the liquid to be applied, a pipe **110** for supplying the liquid to be applied into the milling gas stream **106**, a liquid pump **111**, arranged in the supply pipe **110**, for metering the liquid either into the milling gas stream **106** or *via* pipe **110a** and a nozzle **108** into the gas-jet mill **101**, and a regulating device **118**, which is connected to the pump **111** and the feed device **103** *via* a control line **119**, for controlling the ratio of solid to be finely milled to liquid to be applied.

15. A device according to claim 14, which, instead of being provided with a pipe **116** for discharging the milling gas freed of the finely milled solid, is provided with a pipe **116a** for returning the milling gas freed of the solid into the supply pipe **106** and with a compressor **117** arranged in the pipe **116a**.

16. A device according to either claim 12 or claim 13, comprising a mechanical mill **201**, a storage container **202** for the material for milling, a feed device **203** for the material for milling, a supply pipe **204** for introducing the material for milling into the mechanical mill **201**, a supply pipe **205** for the carrier gas, a discharge pipe **212** for the carrier gas containing the finely milled solid charged with a liquid, a device **213** for separating the finely milled solid charged with a liquid from the carrier gas, a pipe **214** for removing the finely milled solid charged with a liquid, and a discharge pipe **215** for the carrier gas freed

of the solid, which device is provided with a storage container **208** for the liquid to be applied, a supply pipe **209** for the liquid to be applied, a liquid pump **210**, arranged in the supply pipe **209**, for metering the liquid either into the carrier gas stream **205** or *via* pipe **209a** and a nozzle **207** into the mechanical mill **201**, and a regulating device **217**, connected to the pump **210** and the feed device **203** *via* a control line **218**, for controlling the ratio of solid to be finely milled to liquid to be applied thereto.

17. A device according to claim 16, which, instead of being provided with a pipe **215** for discharging the milling gas freed of the finely milled solid, is provided with a pipe **215a** for returning the milling gas freed of the solid into the supply pipe **205** and with a compressor **216** arranged in the pipe **215a**.

18. A device according to either claim 14 or claim 16, in which the liquid container **109** or **208**, the pipe **110** or **209** and the pump **111** or **210** is provided with a heating device.